



National Transportation Safety Board Aviation Accident Final Report

Location:	West Liberty, IA	Accident Number:	CHI07CA220
Date & Time:	07/20/2007, 1630 CDT	Registration:	N8490K
Aircraft:	Schweizer G-164B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The airplane was substantially damaged during an emergency landing following a loss of engine power after takeoff. The pilot reported that he was taking off on runway 36 (2,300 feet by 66 feet, turf) when he encountered birds about 50 feet above ground level. He noted that the engine lost power and the aircraft settled to the ground. He was unable to stop the airplane on the remaining runway. During the runway overrun, the airplane subsequently struck a fence, encountered a ditch, and subsequently nosed over before coming to rest. A post accident survey of the runway revealed bird feathers and remains near midfield on the runway centerline.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadvertent encounter with birds immediately after takeoff and the resulting loss of engine power. Contributing factors were the fence and ditch encountered during the overrun.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: TAKEOFF

Findings

1. (C) OBJECT - BIRD(S)

Occurrence #2: LOSS OF ENGINE POWER

Phase of Operation: TAKEOFF

Findings

2. (C) ENGINE ASSEMBLY - FAILURE

Occurrence #3: FORCED LANDING

Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Occurrence #4: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Findings

3. (F) OBJECT - FENCE

Occurrence #5: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Findings

4. (F) TERRAIN CONDITION - DITCH

Occurrence #6: NOSE OVER

Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Factual Information

Pilot Information

Certificate:	Commercial	Age:	55, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Single
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 With Waivers/Limitations	Last FAA Medical Exam:	05/01/2007
Occupational Pilot:		Last Flight Review or Equivalent:	05/01/2007
Flight Time:	10000 hours (Total, all aircraft), 1000 hours (Total, this make and model), 350 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Schweizer	Registration:	N8490K
Model/Series:	G-164B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Restricted	Serial Number:	710B
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:		Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Turbo Prop
Airframe Total Time:		Engine Manufacturer:	Garrett
ELT:	Not installed	Engine Model/Series:	TPE331
Registered Owner:	CAT Aviation	Rated Power:	
Operator:	CAT Aviation	Operating Certificate(s) Held:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	MUT	Distance from Accident Site:	14 Nautical Miles
Observation Time:	1655 CDT	Direction from Accident Site:	180°
Lowest Cloud Condition:	Scattered / 4600 ft agl	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	100°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.13 inches Hg	Temperature/Dew Point:	25° C / 13° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	West Liberty, IA (4IA2)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1630 CDT	Type of Airspace:	

Airport Information

Airport:	Walker Field (4IA2)	Runway Surface Type:	Grass/turf
Airport Elevation:	715 ft	Runway Surface Condition:	Dry
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	2300 ft / 66 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	41.586111, -91.220278

Administrative Information

Investigator In Charge (IIC):	Tim Sorensen	Report Date:	08/30/2007
Additional Participating Persons:	Christopher Manthe; FAA-Des Moines FSDO; Ankeny, IA		
Publish Date:			
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).